

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059329 A1

(51) International Patent Classification⁷: **F01N 9/00**,
F02D 41/02

(72) Inventor; and

(75) Inventor/Applicant (for US only): **TOMINAGA, Hiroyuki** [JP/JP]; c/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi-ken 471-8571 (JP).

(21) International Application Number:
PCT/IB2004/004155

(22) International Filing Date:
16 December 2004 (16.12.2004)

(25) Filing Language: English

(26) Publication Language: English

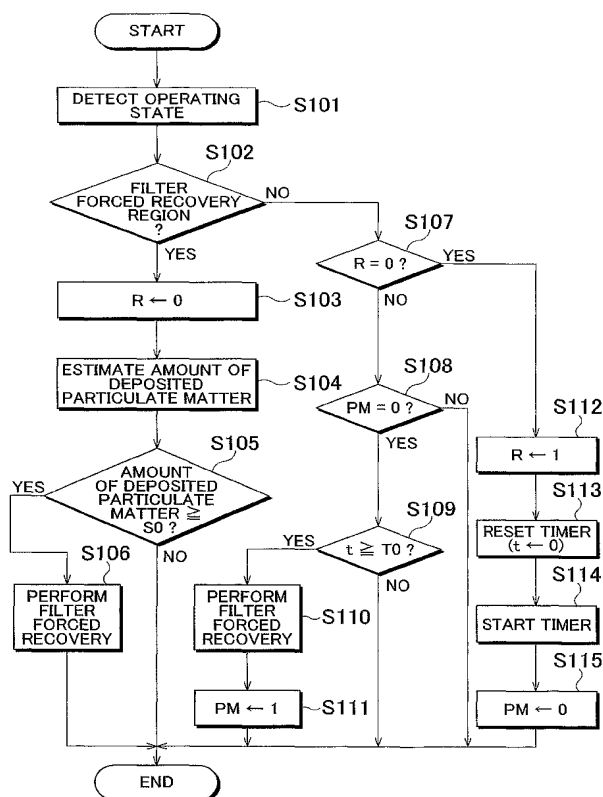
(30) Priority Data:
2003-419641 17 December 2003 (17.12.2003) JP

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: EXHAUST GAS CONTROL SYSTEM FOR INTERNAL COMBUSTION ENGINE AND METHOD FOR RECOVERING FILTER THEREOF



(57) Abstract: In the case where an operating state of an internal combustion engine (1) belongs to a filter forced recovery region, filter forced recovery is performed (S106) when an amount of particulate matter deposited in a filter (20) becomes equal to or larger than a predetermined amount (S0). In the case where the operating state of the internal combustion engine (1) belongs to a filter continuous recovery region, the filter forced recovery is performed (S110) when the operating state of the internal combustion engine (1) continues to belong to the filter continuous recovery region for a predetermined time (T0) or longer.



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*